AMENDMENT

Amendments to the Claims

1. (currently amended) A composition comprising an inner leaflet component, wherein the inner leaflet component is a phospholipid selected from the group consisting of phosphatidylserine, phosphatidylethanolamine, and structural analogs thereof, a prosaposin-related polypeptide, wherein the polypeptide has an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence set forth in SEQ ID NO:1;

(b) an amino acid sequence substantially identical to the amino acid sequence set forth in SEQ ID NO:1 having ~~80%~~ at least 95% sequence identity to the amino acid sequence set forth in SEQ ID NO:1, wherein said polypeptide comprises a biologically active portion of a prosaposin polypeptide comprising at least 25 contiguous amino acids present in a prosaposin polypeptide and retains plasma-membrane affinity;

(c) the amino acid sequence set forth in SEQ ID NO:2; and

(d) an amino acid sequence substantially identical to the amino acid sequence set forth in SEQ ID NO:2 having ~~80%~~ at least 95% sequence identity to the amino acid sequence set forth in SEQ ID NO:2, wherein said polypeptide comprises a biologically active portion of a saposin polypeptide comprising at least 25 contiguous amino acids present in a saposin polypeptide and retains plasma-membrane affinity; and

a pharmaceutically acceptable carrier;

wherein the percentage of sequence identity is determined by a sequence comparison program equivalent to the GCG program GAP (Version 10.00 or later) wherein the comparison window is at least 20 contiguous amino acids in length; and

wherein the prosaposin related polypeptide and the inner leaflet component are contacted with an acidic buffer and treated together to form a nanovesicle exhibiting anti-tumor activity.

2. (currently amended) The composition of claim 1, wherein the inner leaflet component ~~biocompatible phospholipid~~ is phosphatidylserine or a structural analog thereof.

3. (previously presented) The composition of claim 2, wherein said phosphatidylserine or structural analog thereof is ~~dioleoylphosphatidylserine~~ selected from the group consisting of phosphatidic acid, phosphatidylglycerol, phosphatidylinositol, palmitoyloleoylphosphatidylserine, palmitelaidoyloleoylphosphatidylserine, myristoleoyloleoylphosphatidylserine, dilinoleoylphosphatidylserine, palmiticlinoleoylphosphatidylserine, lysophosphatidylserine, and dioleoylphosphatidylserine.

4. (previously presented) The composition of claim 1, wherein the molar ratio of polypeptide to phospholipid is in the range from about 1:1 to about 1:50.

5. (currently amended) The composition of claim [[5]] 2, wherein the molar ratio of ~~fusogenic~~ prosaposin-related polypeptide to phospholipid is in the range from about 1:1 to about 1:10.

6. (previously presented) The composition of claim 1 wherein the composition is capable of inducing apoptosis in hyper-proliferating cells.

7. (currently amended) The composition of claim 1, wherein the biologically active portion of prosaposin polypeptide comprises at least [[25]] 80 contiguous amino acids present in the prosaposin-related polypeptide.

8. (previously presented) The composition of claim 7, wherein the mass ratio of the polypeptide to the inner leaflet component is in the range from about 15:1 to about 3:10.

9. (withdrawn) A method for modulating the distribution of an inner leaflet component in a plasma membrane of a cell of a subject comprising administering to said subject a therapeutically effective amount of the agent of claim 1.

10. (withdrawn) The method of claim 9, wherein said inner leaflet component is phosphatidylserine or a structural analog thereof.

11. (withdrawn) The method of claim 10, wherein said phosphatidylserine or structural

analog thereof is dioleoylphosphatidylserine.

12. (withdrawn) The method of claim 9, wherein the distribution of said inner leaflet component in the outer leaflet of said plasma membrane is altered.

13. (withdrawn) The method of claim 12, wherein the concentration of said inner leaflet component in said outer leaflet is increased.

14. (withdrawn) The method of claim 9, wherein the distribution of said inner leaflet component is modulated in hyper-proliferating cells.

15. (withdrawn) The method of claim 14, wherein said hyper-proliferating cells are selected from the group consisting of tumor cells and cancer cells.

16. (withdrawn) The method of claim 9, wherein said method promotes cell death.

17. (withdrawn) A method of modulating tumor volume in a subject, said method comprising administering a therapeutically effective amount of the agent of claim 1.

18. (withdrawn) The method of claim 17, wherein said agent promotes cell death in hyper- proliferating cells.

19. (withdrawn) The method of claim 18, wherein said hyper-proliferating cells are selected from the group consisting of tumor cells and cancer cells.

20. (withdrawn) The method of claim 19, wherein said cancer cells are selected from the group consisting of sarcoma, neuroblastoma, breast carcinoma, and squamous cell carcinoma cells.

21. (withdrawn) The method of claim 17, wherein said inner leaflet component is phosphatidylserine or a structural analog thereof.

22. (withdrawn) The method of claim 21, wherein said phosphatidylserine or structural analog thereof is dioleoylphosphatidylserine.

23. (withdrawn) The method of claim 17, wherein said subject is a mammal.

24. (withdrawn) The method of claim 23, wherein said mammal is a human.

25. (withdrawn) The method of claim 17, wherein said tumor volume decreases.

26. (withdrawn) The method of claim 17, wherein the molar ratio of said polypeptide to said inner leaflet component is in the range from about 1:1 to about 1:50.

27. (withdrawn) The method of claim 26, wherein the molar ratio of said polypeptide to said inner leaflet component is in the range from about 1:1 to about 1:10.

28. (withdrawn) The method of claim 17, wherein said agent further comprises a pharmaceutically acceptable carrier.

29. (withdrawn) A method of treating a cancer in a subject, said method comprising administering a therapeutically effective amount of the agent of claim 1.

30. (withdrawn) The method of claim 29, wherein said inner leaflet component is phosphatidylserine or a structural analog thereof.

31. (withdrawn) The method of claim 30, wherein said phosphatidylserine or structural analog thereof is dioleoylphosphatidylserine.

32. (withdrawn) The method of claim 29, wherein the molar ratio of said polypeptide to said inner leaflet component is in the range from about 1:1 to about 1:50.

33. (withdrawn) The agent of claim 32, wherein the molar ratio of said polypeptide to said inner leaflet component is in the range from about 1:1 to about 1:10.

34. (withdrawn) The method of claim 29, wherein said agent further comprises a pharmaceutically acceptable carrier.

35. (withdrawn) The method of claim 29, wherein said agent promotes cell death in hyper-proliferating cells.

36. (withdrawn) The method of claim 35, wherein said cell death occurs through apoptosis.

37. (withdrawn) The method of claim 35, wherein said hyper-proliferating cells are selected from the group consisting of cancer cells.

38. (withdrawn) The method of claim 37, wherein said cancer cells are selected from the group consisting of sarcoma, neuroblastoma, breast carcinoma, and squamous cell carcinoma cells.

39. (withdrawn) The method of claim 29, wherein said subject is a mammal.

40. (withdrawn) The method of claim 39, wherein said mammal is a human.

41. (withdrawn) The method of claim 29, wherein said agent is administered enterally, parenterally, subcutaneously, intravenously, intraperitoneally, or topically.

42. (withdrawn) The method of claim 29, wherein multiple doses of said agent are administered to said subject.

43. (withdrawn) The method of claim 29, wherein a single dose of said agent is administered to said subject.

44. (currently amended) An anti-tumor composition comprising a polypeptide having the amino acid sequence set forth in SEQ ID NO:2, dioleoylphosphatidylserine and a pharmaceutically acceptable carrier; wherein the polypeptide and the dioleoylphosphatidylserine form a nanovesicle; and wherein the composition is capable of inducing apoptosis in hyper-proliferating cells wherein the prosaposin related polypeptide and the inner leaflet component are contacted with an acidic buffer and treated together to form a nanovesicle exhibiting anti-tumor activity.

45. (previously presented) The anti-tumor composition of claim 44, wherein the mass ratio of polypeptide to dioleoylphosphatidylserine is approximately 5:1.

46. (previously presented) The anti-tumor composition of claim 44, wherein the mass ratio of polypeptide to dioleoylphosphatidylserine is approximately 15:7.

47. (previously presented) The anti-tumor composition of claim 44, wherein the mass ratio of polypeptide to dioleoylphosphatidylserine is in the range from about 15:1 to about 3:10.

48. (previously presented) The anti-tumor composition of claim 44, comprising approximately 10 μM polypeptide and approximately 30 μM dioleoylphosphatidylserine.

49. (previously presented) The anti-tumor composition of claim 44, comprising approximately 10 μM polypeptide and approximately 70 μM dioleoylphosphatidylserine.

50. (currently amended) A composition consisting essentially of an inner leaflet component, wherein the inner leaflet component is a phospholipid selected from the group consisting of phosphatidylserine, phosphatidylethanolamine, and structural analogs thereof, a biologically active prosaposin-related polypeptide; and a pharmaceutically acceptable carrier; wherein the prosaposin related polypeptide and the inner leaflet component are rcontacted with an acidic buffer and treated together to form a nanovesicle exhibiting anti-tumor activity.

51. (previously presented) The composition of claim 50, wherein the leaflet component is phosphatidylserine or a structural analog thereof.

52. (currently amended) The composition of claim 51, wherein the phosphatidylserine or structural analog thereof is ~~dioleoylphosphatidylserine~~ selected from the group consisting of phosphatidic acid, phosphatidylglycerol, phosphatidylinositol, palmitoyloleoylphosphatidylserine, palmitelaidoyloleoylphosphatidylserine, myristoleoyloleoylphosphatidylserine, dilinoleoylphosphatidylserine, palmiticlinoleoylphosphatidylserine, lysophosphatidylserine, and dioleoylphosphatidylserine.

53. (previously presented) The composition of claim 51, wherein the molar ratio of polypeptide to inner leaflet component is in the range from about 1:1 to about 1:50.

54. (previously presented) The composition of claim 51, wherein the molar ratio of polypeptide to inner leaflet component is in the range from about 1:1 to about 1:10.

55. (previously presented) The composition of claim 51 wherein the composition is capable of inducing apoptosis in hyper-proliferating cells.

56. (currently amended) The composition of claim 51, wherein the polypeptide is a biologically active portion of prosaposin polypeptide ~~comprising at least 25 contiguous amino acids present in the prosaposin-related polypeptide~~ and retains plasma-membrane affinity.

57. (previously presented) The composition of claim 56, wherein the mass ratio of the polypeptide to the inner leaflet component is in the range from about 15:1 to about

3:10.